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EXAMINER

HU, KANG

ART UNIT

PAPER NUMBER

3715

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/798,531	Applicant(s) UHLIR ET AL.	
	Examiner KANG HU	Art Unit 3715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/23/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Present office action is in response to amendment filed on 1/26/2010. Claims 1-32 are currently pending in the application.

Response to Amendment

1. The affidavit filed on 1/26/2010 under 37 CFR 1.131 has been considered but is ineffective to overcome the Ohtsu et al. reference.
2. The applicant's exhibit provided is sufficient to establish conception, however the evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of the Ohtsu et al. reference to either a constructive reduction to practice or an actual reduction to practice. The applicant has not provided any evidence showing due diligence. Therefore the affidavit is ineffective to overcome the Ohtsu reference.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
4. Claims 14-32 are rejected under USC 101, the claimed invention is directed to non-statutory subject matter. In order for a claimed process to be considered statutory it must be: (1) tied to a particular machine or apparatus, or (2) transform a particular article into a different state or thing. The use of a specific machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility; the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity;

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and the transformation must be central to the purpose of the claimed process. With respect to claims 14 and 29, the claims recite a method of operating a computer game that runs on a computer platform. The methods do not transform a particular article into a different state or thing, a showing of physical transformation requires an actual change in the state of a physical object involved in the process, such as a method for curing rubber. The methods further do not make any explicit recitations of a particular machine which is critically tied to the performance of the method. Generally the method is directed to operating a computer game, the recitation of "using an application programming interface program that runs on the computer platform" does not explicitly recite a tie to a particular machine, as computer platform is interpreted to be both hardware and software. Dictionary.com defines platform as "a. hardware platform b. software platform"; Merriam-Webster defines platform as "operating system"; For at least these reasons, one would interpret computer platform to be either one of hardware or software, therefore the claims do not recite a particular machine which is critically tied to the performance of the method.

The applicant has amended the claims to recite "using the application programming interface program to access the geographic data from a map database stored on data storage hardware", the recited portion does not overcome the 101 rejection as it also does not recite a particular machine critically tied to the performance of the method. It merely describes the insignificant extra-solution activity of retrieving information from a data storage device. The applicant is suggested to recite a critical tie to the method by at least reciting presenting a game play scenario by the computer processor, and provide the geographic data by the computer processor from the map database to the game engine program etc.

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Claims 15-28 and 30-32 are also rejected for their dependency of claims 14 and 29 for failing to correct these deficiencies and therefore rejected for the same reason.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 9-19 and 24-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtsu et al. (US 2004/0176936 A1) in view of Ashby (US 6,047,280)

Re claims 1, 14, 15, and 16, Ohtsu teaches a game engine program configured for running on a computer platform and for presenting a computer game to a user via the user interface (¶ 42-45: simulation unit, display unit);

and an application programming interface program configured for running on the computer platform, for accepting requests for data from the game engine program, for accessing the data from the map database (Ohtsu ¶ 49, road traffic environment database), and for providing the data in a suitable format to the game engine program (simulator unit includes a road traffic environment database);

wherein the map database, the user interface, the game engine program, and the application programming interface program are stored on at least one computer-readable medium (Ohtsu ¶ 1),

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and wherein a computer game play scenario based on the data is displayed on the user interface, wherein the computer game play scenario corresponds to a virtual position for display on the user interface in which the virtual position is independent of the user's actual physical location (player in virtual environment).

Ohtsu does not teach of map database containing data that represent roads in a real-world geographic locale, Ohtsu teaches of road database further includes map data regarding the locations, shapes of the road, buildings, traffic facilities, traffic lights and impassable zones (turn restriction content). But Ohtsu does not teach of having real-world navigation on the roads in real-world geographic locale. However Ashby teaches of having a map database containing data that represents roads in a real-world geographic locale, the data including navigation-related attributes, including turn restriction content, for real-world navigation on the roads in the real-world geographic locale (Ashby, col 1, lines 33-49 and col 5, lines 17-28); It would have been obvious to one of ordinary skill at the time of the invention to combine the teaches of Ashby to Ohtsu to provide a real-world geographic locale in order to provide a more realistic environment to the simulation driver.

Re claim 9, application programming interface program is further configured for providing for spatial queries of data from the database (Ashby, col 27, lines 22-34).

Re claims 10 and 24, Ohtsu teaches of having a game application shell that includes basic logic, rules, strategy (Ohtsu ¶ 42: computes the behaviors such as position, speed, acceleration and direction of the plurality of mobile units, and characters (Ohtsu ¶ 49 virtual driver) for a type of

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computer game (simulation), wherein the game application shell is configured for access by the game engine program (Ohtsu ¶ 43: simulation unit).

Re claims 11 and 25, Ohtsu teaches computer game is of a type selected from a group consisting of: a road rally game (driving simulation).

Re claims 12 and 26, Ohtsu teaches the game engine program is configured for performing specific tasks and for operating on an as-needed basis during game play (Ohtsu ¶ 53: the simulation establishes a path point where the subject mobile unit should pass, and target direction and target speed of the mobile unit is computed)

Re claims 13 and 27, Ohtsu teaches of game engine program comprises at least one selected from the group consisting of: logic engines, rules engines, animation engines, graphics engines, and user interface engines (Ohtsu ¶ 42, 47 and 49).

Re claim 17, Ohtsu teaches of determining a curve through data points used in the map database to represent linearly extending feature, wherein the curve is used for display of at least one of the linearly extending features by the computer platform as part of a game play scenario of the computer game (Ohtsu Fig 4, set path);

Re claims 18 and 19, Ohtsu teaches combining road model data with data that represent roads from the map database to provide a realistic visual appearance of road-related things by the

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computer platform as part of a game play scenario of the computer game, the road-related things include at least a traffic signal (Ohtsu ¶ 64).

Re claim 28, Ashby teaches the real-world navigation includes vehicle route calculation and vehicle route guidance corresponding to the roads in a real-world geographic locale (Ashby, col 4, line 59).

Re claim 29, in addition to the teachings of claim 1, Ashby further teaches using the application programming interface to access the geographic data from a map database (Ashby, col 5, lines 39-40: data access interface layer), the geographic data including a plurality of road segment records that represent portions of roads in a real-world geographic locale (Ashby, fig 3, application software, route calculation, map display, direction generation, map matching, user interface, etc.), wherein each of the road segment records corresponds to navigation-related functions for real-world navigation on the roads in the real-world geographic locale, the navigation-related attribute data including (i) geographic coordinates (Ashby, col 1, lines 43-45: the detailed geographic data set may include information about the positions of roads and intersections in or related to one or more specific geographic regional areas); (ii) a street name (col 9, line 62), (iii) an address range, (iv) a turn restriction (Ashby, col 2, line 47), and (v) road shape (Ashby, col 32, line 23: shape point information);

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Using the application programming interface to provide the geographic data from the map database in a suitable format to the game engine program (Ashby, col 5, lines 39-40: data access interface layer).

Re claim 30, application programming interface requests data representing all road segment records within a selected area from the map database as a function of spatial query, the spatial query defining the selected area (Ashby, col 9, lines 34-62).

Re claim 31, Ashby teach the selected area is defined by a longitude and latitude point and a radial distance from the longitude and latitude point. (Ashby, col 9, lines 42-45: query requests can be qualified by geographical parameters or attributes).

Re claim 32, the selected area is defined by a rectangular area having specified geographic boundaries (Ashby, col 9, line 60 – rectangular queries).

7. Claims 2-8 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtsu et al. (US 2004/0176936 A1) in view of Ashby (US 6,047,280) further in view of Virtual GIS: A REAL-TIME 3D GEOGRAPHIC INFORMATION SYSTEM (NPL submitted 01/09/2008) hereon after known as Virtual GIS.

Re claim 2, Ohtsu and Ashby does not teach of a 3D function configured for converting geographic data from the map database to a perspective view for display in the computer game. Virtual GIS teaches "the ability to have detailed 3D views and to jump..." and "Planners for new

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buildings or other facilities can see full 3D views from their prospective sites... in addition, they can use the GIS database to display..." on page 2, col 1, lines 25-30 and lines 35-37). It would have been prima facie obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Ashby with Virtual GIS to transform geographic data from the map database into perspective views because such method is known for better visualization than a traditional GIS. Ashby and Virtual GIS are analogous art in solving the problem of presenting geographic data information to the user in a user interface.

Virtual GIS further teaches:

Re claim 3, a smoothing function configured for determining a curve through data points used in the map database to represent a linearly extending feature, wherein the curve is used for display of the linearly extending feature in the computer game (Virtual GIS: 2.1 Datasets: "Terrain surfaces are visualized as a mesh of shaded or textured polygons. Additional non-protruding features may be overlaid on the surface, such as graphical representations of roads and waterways" Page 4, col 1, lines 1-10).

Re claim 4, an integration function configured to combining road model data with data that represent roads from the map database to provide a realistic visual appearance of road-related things (Virtual GIS: 2.1 Datasets: "Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways.." Page 4, col 2, lines 19-26).

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Re claim 5, road-related things include at least one selected from the group consisting of: road colors, road pavement, lane stripes, curbs, sidewalks, signs, lampposts, lane dividers, traffic signals, speed bumps, and crosswalks (Virtual GIS: 2.1 Datasets: “non-protruding features may be overlaid on the surface, such as graphical representations of roads and waterways” and “Information such as soil type, road surface, or foliage density can be stored in these GIS layers and be rendered”, page 4, col 1, lines 1-22).

Re claim 6, an integration function configured for combining 3D model data with data that represent roads from the map database to provide realistic visual representation of polygon shaped features in the geographic locale (Virtual GIS: 2.1 Datasets: “Terrain surfaces are visualized as a mesh of shaded or textured polygons”, page 4, col 1, lines 3-4).

Re claim 7, an integration function configured for combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of cityscape and landscape features in the geographic locale (Virtual GIS: 2.1 Datasets: “Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

Re claim 8, an integration function configured for combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of one of the

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group consisting of: buildings, fences, trees, shrubbery, lawns, fences, and clouds in the geographic locale (Virtual GIS: 2.1 Datasets: “Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

Re claim 20, combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of polygon shaped features in the geographic locale by the computer platform as part of a game play scenario of the computer game (Virtual GIS: 2.1 Datasets: “Terrain surfaces are visualized as a mesh of shaded or textured polygons”, page 4, col 1, lines 3-4).

Re claim 21, combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of cityscape and landscape features in the geographic locale by the computer platform as part of a game play scenario of the computer game (Virtual GIS: 2.1 Datasets: “Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

Re claim 22, combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of one of the group consisting of: buildings, fences, trees,

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shrubbery, lawns, fences, and clouds in the geographic locale by the computer platform as part of a game play scenario of the computer game (Virtual GIS: 2.1 Datasets: “Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

Re claim 23, application programming interface program is further configured for providing for spatial queries of data from the map database (Virtual GIS: 2.2.2 Query: users of the system can access this database by directly querying objects in the virtual environment, page 5).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ashby with Virtual GIS to Ohtsu to use known methods to transform geographic data from the map database into perspective three dimensional views because such method is known for better visualization than a traditional GIS. Ashby and Virtual GIS are analogous art in solving the problem of presenting geographic data information to the user in a user interface

Response to Arguments

8. Applicant's arguments filed 1/26/2010 have been fully considered but they are not persuasive.

With arguments in regard to rejections under 101, the applicant asserts that the independent claims provide a tangible result. The argument is moot as the rejection was not based on the

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claims not providing a tangible result, rather that the claimed method is not critically tied to a particular machine. Detailed explanation and suggestions to overcome the 101 rejection has been provided above and not repeated herein.

The applicant has provided specific portions to overcome the 112 1st rejection, the portions provided are relevant and the 112 1st rejection are hereby withdrawn.

Applicant's affidavit is effective to overcome the Ohtsu reference as explained above and not repeated herein. Therefore the 103 rejection is maintained.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to KANG HU whose telephone number is (571)270-1344. The examiner can normally be reached on 8-5 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on 571-262-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. H./
Examiner, Art Unit 3715

/XUAN M. THAI/
Supervisory Patent Examiner, Art Unit 3715